

ABSTRACT

A disk drive for storing data includes a drive housing and an asymmetrical storage disk. The storage disk includes a body region, a first side region, and an opposed second side region. The side regions are asymmetrical relative to the body region. Various structures can be, alternately or in combination, incorporated into the second side region. For example, the second side region can include one or more stiffeners that increase the rigidity of the storage disk, a plurality of projections that improve fluid flow within the disk drive, a damping layer for damping vibration of the storage disk, and/or a constraining layer that enhances the damping properties of the damping layer. In other embodiments, the second side region includes a supplemental layer that balances the storage disk, an adsorption layer that adsorbs impurities, and/or a diffusion layer that filters unwanted particles.

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